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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/606,137 | 06/28/2000 | Michael E. Moseley | 500.003US1 | 5608 |

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EXAMINER

LIN, JEYUHU

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 11/20/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,137

Applicant(s)

MOSELEY ET AL.

Examiner

Jeoyuh Lin

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 and 47-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 24-43 and 47-53 is/are rejected.
- 7) ☒ Claim(s) 17-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Entry of Amendment

1. Applicant's amendment, filed on July 25, 2003, and appeal brief, filed as paper No. 16, is acknowledged. Claims 1-43 and 47-53 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

-Claims 1-9, 13-16, 24-28, 30-43, and 47-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss et al. (US 5,980,885), in view of Wald (US 6,181,134 B1).

Weiss et al. teaches a method of treating neurodegenerative disease, comprising the following:

-Transplanting cultured stem cell into the body (Column 10, lines 44-51 and column 11, lines 43-65)

-Detecting the survival of the transplanted graft through various imaging modality, including MR or CT scanning. Also, the range of cells covered by the teachings would include cell colonies, and cells grown in culture prior to implantation. (Column 11, lines 40-60) However, it does not elaborate the particular characteristics in observing graft survival. Wald teaches a method of using MR to detect NAA, lactate, and neurotransmitter levels in indicating neuronal metabolism and viability. (Column 5, lines

Art Unit: 3737

15-16) It would have been obvious to combine such that the success of the transplantation in the long term can be assessed. Also, the use of tuned rf coil, as claims 13-16 teach, is well known in the art of MR imaging, and therefore, inherent.

-Claims 1, 3, 6, 10-12, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss in view of Judd (US 5,910,112)

Weiss meets all of the claims except that it fails to teach using techniques selected from the group as taught from the group claimed, such as Na-23 levels. Judd teaches an MRI imaging device for observing viability of heart cells, which could have come from a transplanted heart, comprising non-destructively monitoring Na23 levels. (Column 3, lines 10-30) It would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the Judd's teaching to Weiss's device such that the long-term success of the transplantation can be assessed.

Allowable Subject Matter

3. Claims 17-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments, see paper # 14, filed on July 25, 2003, with respect to lack of enablement of the invention have been fully considered and are persuasive. The rejection of claims 1-43 and 47-53 have been withdrawn.

5. Applicant's arguments with respect to claims 1-43 and 47-53 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 3737

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeoyuh Lin whose telephone number is (703) 306-5990. The examiner can normally be reached on m-f, 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



JYL
November 14, 2003


DENNIS W. RUHL
SUPERVISORY PATENT EXAMINER